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Ex. 1



BANCO NACIONAL DO DESENVOLVIMENTO ECONÔMICO

G T M

COMMUNICATION IN THE BRAZILIAN DEVELOPMENT
BANKING SYSTEM - A PRELIMINARY REPORT

Arthur L. Beals
George F. Farris
D. Anthony Butterfield

WP.27

WORKING PAPER

**M.I.T.
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BNDE/MIT JOINT DEVELOPMENT BANK TRAINING AND RESEARCH PROJECT

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GRUPO DE TRABALHO MISTO

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MASSACHUSETTS INSTITUTE OF TECHNOLOGY

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A B S T R A C T

Questionnaires from 189 respondents in 11 Brazilian banks were analyzed in an effort to determine: 1) employees' opinion of the communication system; 2) ways in which characteristics of a person affect the information he receives; and 3) the relationships between communication and effectiveness.

In general, employees are reasonably satisfied with the information they receive; but they feel they should receive more information on operations of BNDE and the BNDE/FIPEME system.

Age, level, degree of involvement with job, and time with the bank seemed to be directly related to the receipt of sufficient information. Years of schooling appeared to be directly related to quantity of communication.

Quality of communication, involvement with job, and amount of group work done seem to be related to effectiveness.

The Grupo de Trabalho Misto is the working entity carrying on the goals of the BNDE/MIT Joint Development Bank Training and Research Project. The Project was created in 1967 with the support of a Ford Foundation grant. It is providing training, technical assistance, and action research designed to increase the capability of development finance institutions serving as BNDE financial agents in Brazil. The members of the Grupo de Trabalho Misto are:

Banco Nacional do Desenvolvimento Econômico

Dr. Hélio Schlittler Silva, BNDE Director and Co-ordinator
Dr. Roberto Félix de Oliveira
Dr. João Lourenço Corrêa do Lago Filho
Dr. Tarcísio B. Arantes
Dr. Juvenal Osório Gomes
Dr. Luiz Carlos Borges Fortes

Massachusetts Institute of Technology

Professor J.D. Nyhart, Co-ordinator and Chief Investigator
Professor George F. Farris
Professor John F. Rockart
Dr. Heinz E.F. Luzny, Senior Representative, Resident in Brazil
Dr. D. Anthony Butterfield, Senior Representative, Resident in Brazil

January 9, 1970

This paper reports our preliminary studies of communication conducted in banks in the BNDE/MIT Joint Development Bank Training and Research Project. The data are taken from the "Basic Questionnaire of Regional Development Organizations". (BQ) administered in 11 development banks by Dr. Anthony Butterfield and Prof. George F. Farris.

Comparisons are based on average responses to the questions in the study. We are concerned here primarily with the 17 question areas below. The complete questions are presented in appendix 1.

- 1a. Frequency of contact between the bank and BNDE.
- 2a. Evaluation of contact between the bank and BNDE.
3. Degree to which BNDE supplies necessary information clearly, completely, and rapidly.
4. Degree to which enough information is received concerning:
 - a. BNDE's decisions
 - b. Plans and goals of BNDE/FIPEME
 - c. Performance of BNDE/FIPEME system.
 - d. Activities in process and project of general interest to the whole system
 - e. Performance of the bank as a FIPEME agent
6. Quality of needed and requested services provided by BNDE.
7. Amount of influence the bank should have in the repasse program.
18. Frequency with which respondent receives needed information clearly, quickly, and in sufficient detail.
20. Degree of respondent's involvement with his work.
22. Frequency of group work

25. Age

27 Year respondent joined the bank

28 Years of school attended

30 Position

Framework of Analysis

We view communication or the flow of information as having two primary aspects - content and perception by the recipient. We may also consider two ways to measure communication. These are the quantity and the quality of the information flow.

Of course, each of the above measures is a function of a number of variables; however, we feel that six such variables are especially important and measurable in the study. These six are: 1) age of the person; 2) Length of time the person has been with the bank; 3) Years of school completed; 4) level; 5) how involved in his work the person feels, and 6) the amount of group work the person does. These data are given in questions 25, 27, 28, 30, 20 and 22 respectively.

Predicted relationships

People who are older or have spent more time with the banks may tend to become set in their ways and learn to live with what information they have. Thus they should be more satisfied with the communication system. On the other hand, they may get better information because they know where to go for it and have established informal relationships with needed sources of data.

Respondents who are more educated should realize the value of better information and may therefore be dissatisfied with what they do have. They ought to be capable of handling more information at a time and may expect it to be available.

Those at higher levels in the organization should be more satisfied with the information available because they have the power to structure the communication process at least some degree. Unfortunately for this study, these persons also tend to be those who are older and have been with the bank a long time; and this may make separation of the two effects difficult (because of the small number of respondents).

Respondents who are more involved with their work should have different information needs, desires, and viewpoints than those who are less involved. The same ideas should apply to persons who work often in groups as opposed to those who do not.

The quantity and quality of communication is greater in more effective banks than in less effective ones.

Unfortunately, we were unable to distinguish between content and perception of communication in this study because we have no measures of content. We also wanted to differentiate between internal communication and communication with BNDE; however, this was impossible since question 18 is our only question on internal communication.

Our framework of analysis is summarized in figure 1.

Procedure

Our study is divided into four types of investigations. These are:

- 1) General information flows; 2) Communication and bank effectiveness;
- 3) Communication and individual characteristics, and 4) Bank effectiveness

Perception of
Communication

Variable	Quantity	Quality	Effectiveness
Age	Direct	Direct	
Time with Bank	Direct	Direct	
Education	Inverse	Inverse	
Level	Direct	Direct	
Degree of Involvement	Vary	Vary	Direct
Extent of Group Work	Vary	Vary	Direct
Effectiveness	Direct	Direct	

Direct means variables are directly related.

Inverse means variables are inversely related.

Vary means that we expect a relationship but are not sure of the direction.

Initial Framework of Analysis

Figure 1

and communication as influenced by individual characteristics.

This approach corresponds to a funneling process which looks first at the broad characteristics of communication and then narrows down to the causes of these characteristics. The major problem with this approach is that the number of cases becomes progressively smaller so that many of the later findings are only suggestive.

No statistical tests were applied to these data; therefore, the results reported should not be considered statistically validated. This approach is consistent with our aim of doing a preliminary analysis.

Results and Discussion

Results will be presented in the order outlined above. In general the questions will be referred by number; it is probably advisable to refer often to the list of question areas at the beginning of this report or appendix 1.

General information flows

Average responses to the 11 questions pertaining to communication are shown in figure 2.

The most striking thing about this graph is the low ratings given to question 4 - Do you get enough information on these matters (interactions with BNDE).

Respondents generally report a lack of sufficient information on interactions with BNDE that effect either themselves or the FIPEME system. Other than this, however, respondents tend to view the communication system as reasonable; but they do tend to feel that individual banks should have more influence in the repasse program.

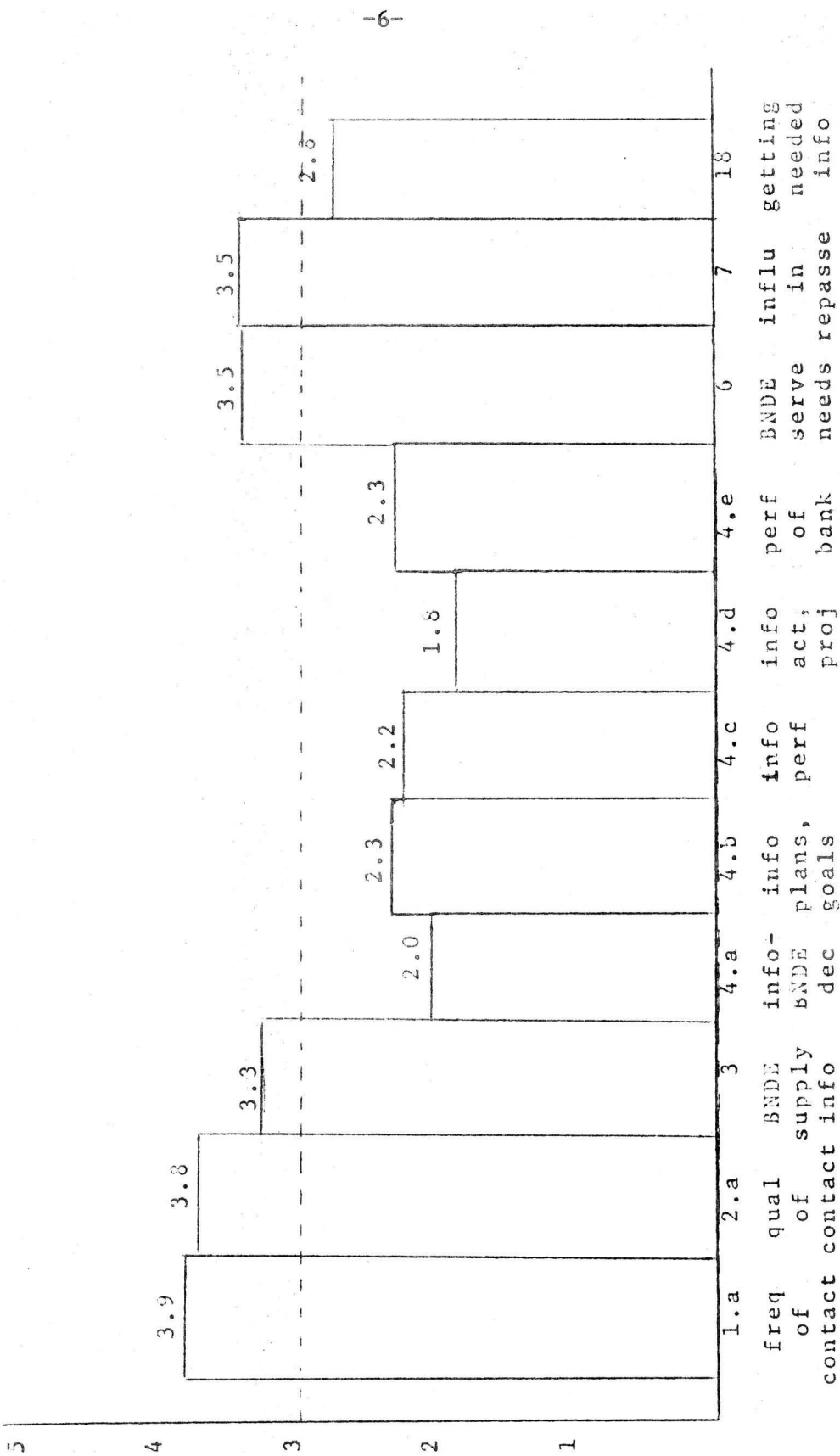
excellent
always

good
usually

so-so
sometimes
passable

poor
rarely

never
very poor



General Information Flows

Figure 2

Communication and Bank Effectiveness

There are three primary relationships between effectiveness and communication suggested by these data. See figure 3. There appears to be no systematic variation between banks in the amount of contact with BNDE; however, there does seem to be a difference in the perceived quality of the contact. More effective banks tend to see the contact with BNDE as better. People in less effective banks tend to be more involved with their work than those in more effective banks. Respondents in less effective banks seem to work in groups more often than those in more effective banks. These findings may be due to the smaller size of less effective banks.

Communication and Individual Characteristics

Age. Older persons tend to be less satisfied about the information they receive concerning the performance of the institution as a FIPEME agent. (question 4.e). On the other hand, older persons do report that in general they receive information that they need better than younger persons. (question 18). These relationships are summarized in figure 4.

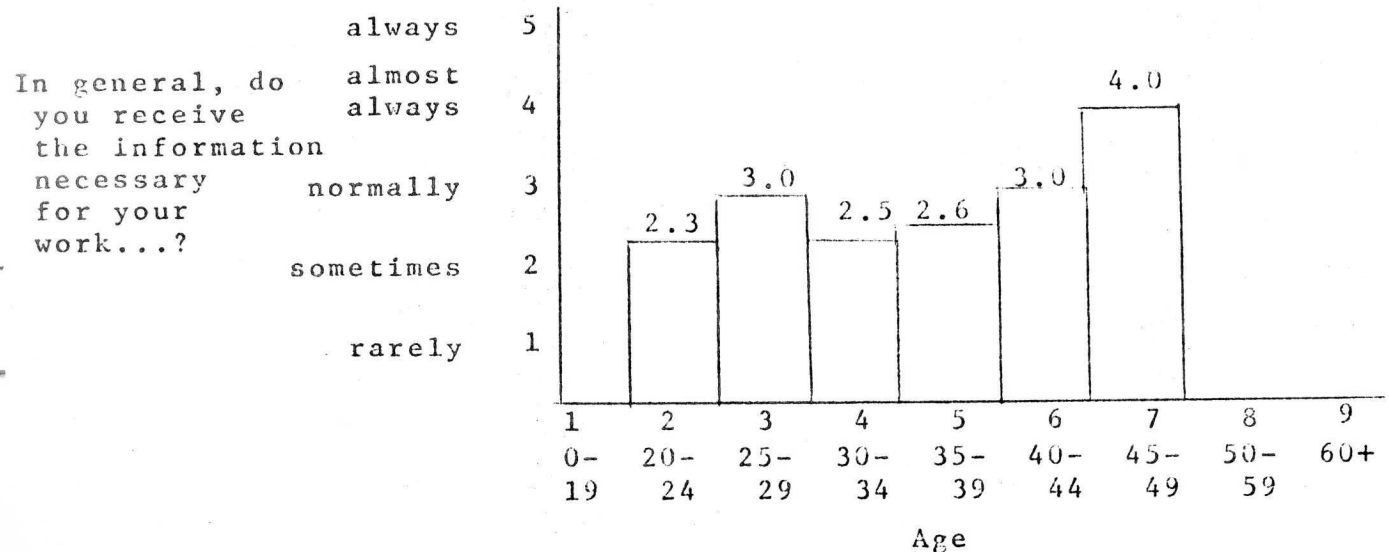
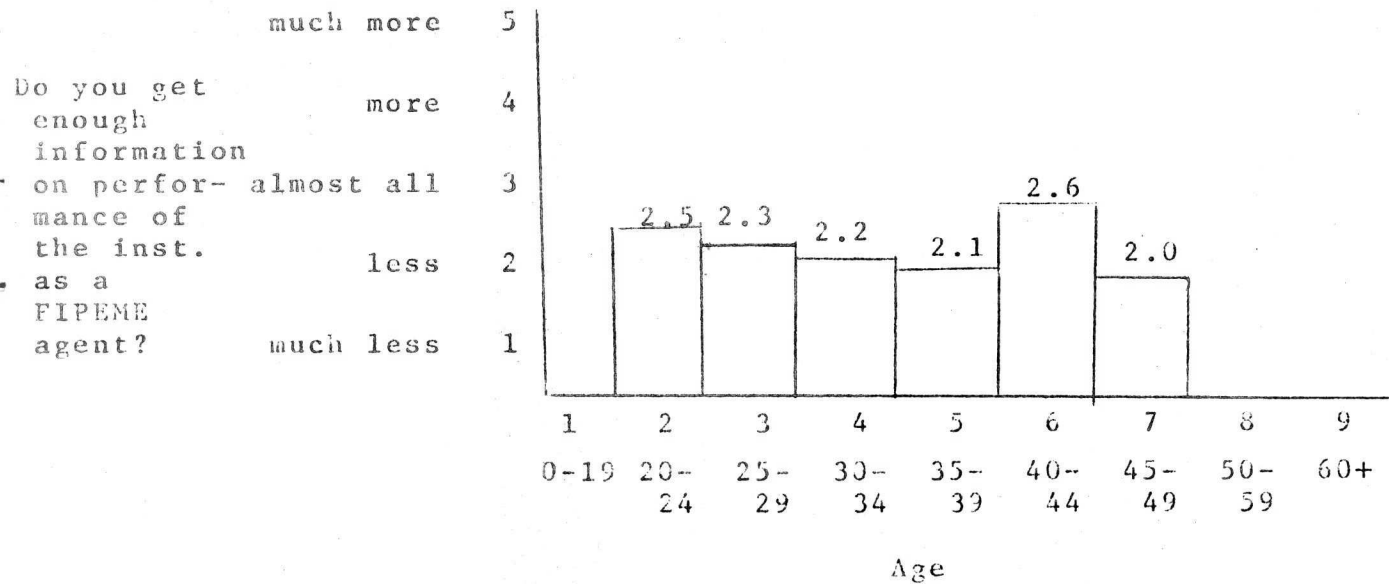
Time with the bank. The longer a person has been with the bank, the more satisfied he tends to be with information concerning BNDE's decisions which affect him (question 4.a), the plans and goals of BNDE/FIPEME (question 4.b), and performance of the BNDE/FIPEME system (Fig.5). He also seems to get needed information (question 18) better than a newer person (fig.6). These findings tend to support our expectations as outlined under framework of analysis.

Years of school attended. Respondents with more schooling appear to have more frequent contact with BNDE (Fig.7). This supports the hypothesis that persons with more education desire and can handle more information.

Question	Average Response four most Effective Banks	Average Response four least Effective Banks
1.a	3.8	3.8
2.a	3.9	3.6
20	3.8	4.0
22	3.5	4.0

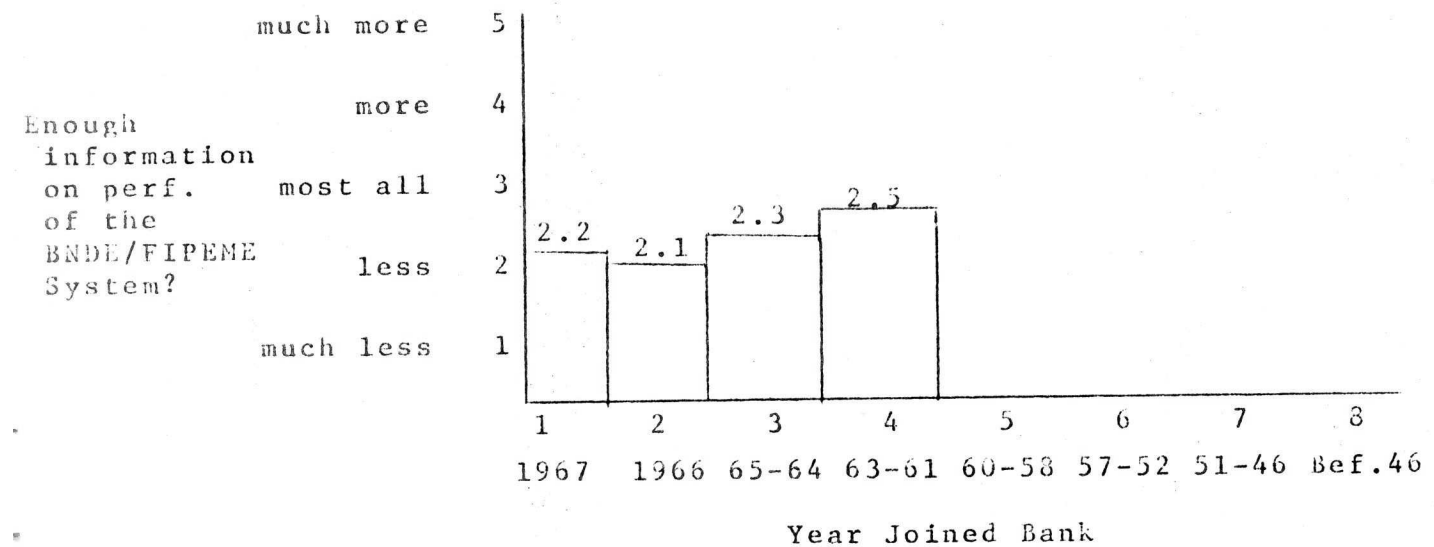
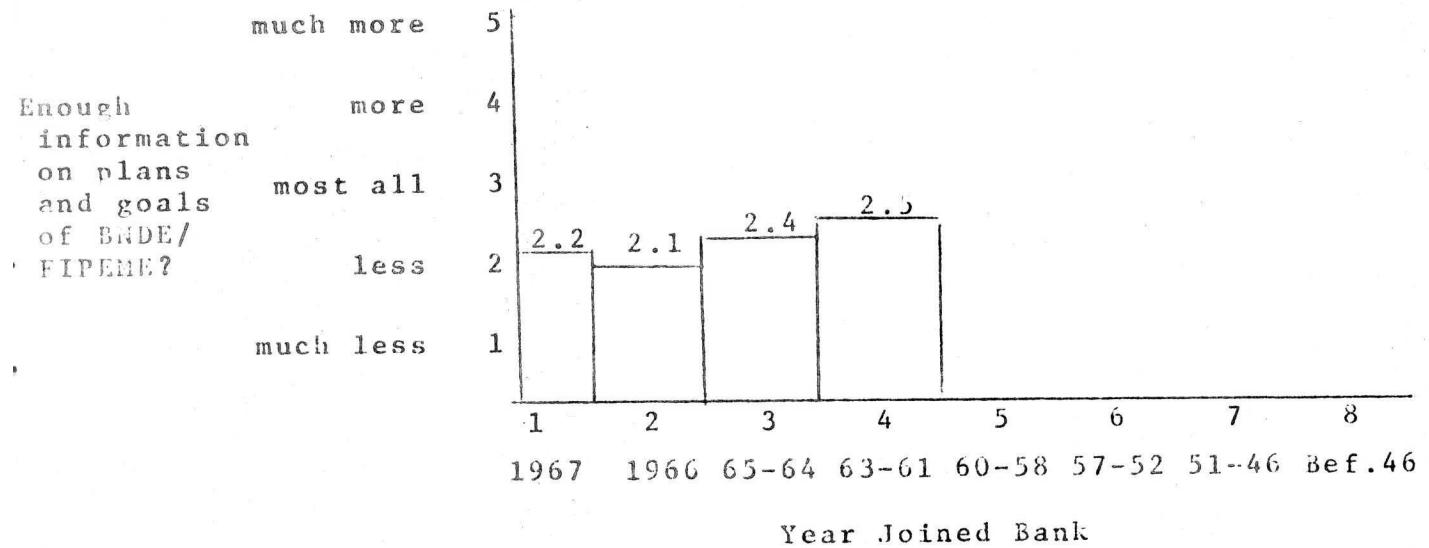
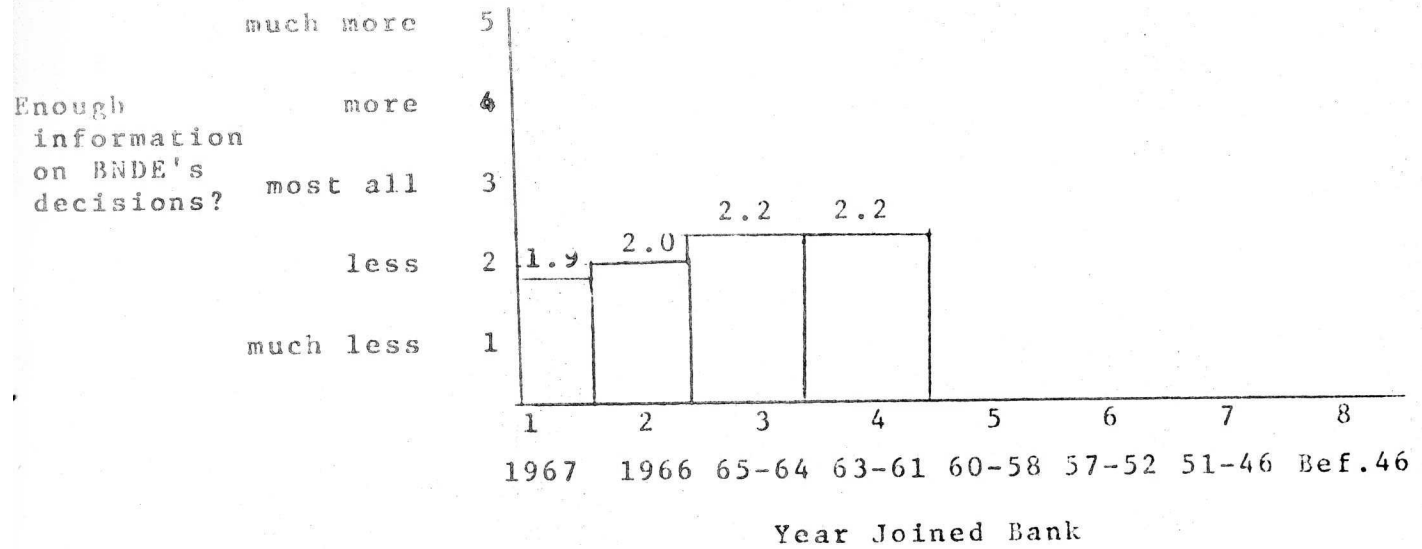
Communication and Bank Effectiveness

Figure 3



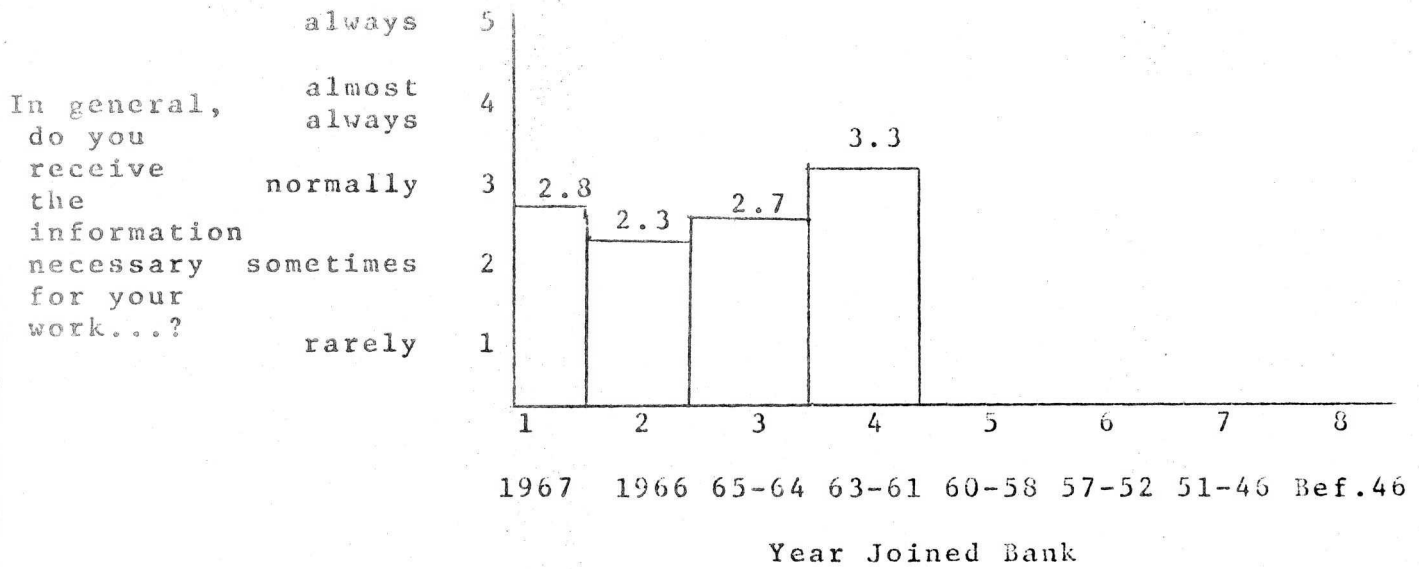
Communication and Age

Figure 4



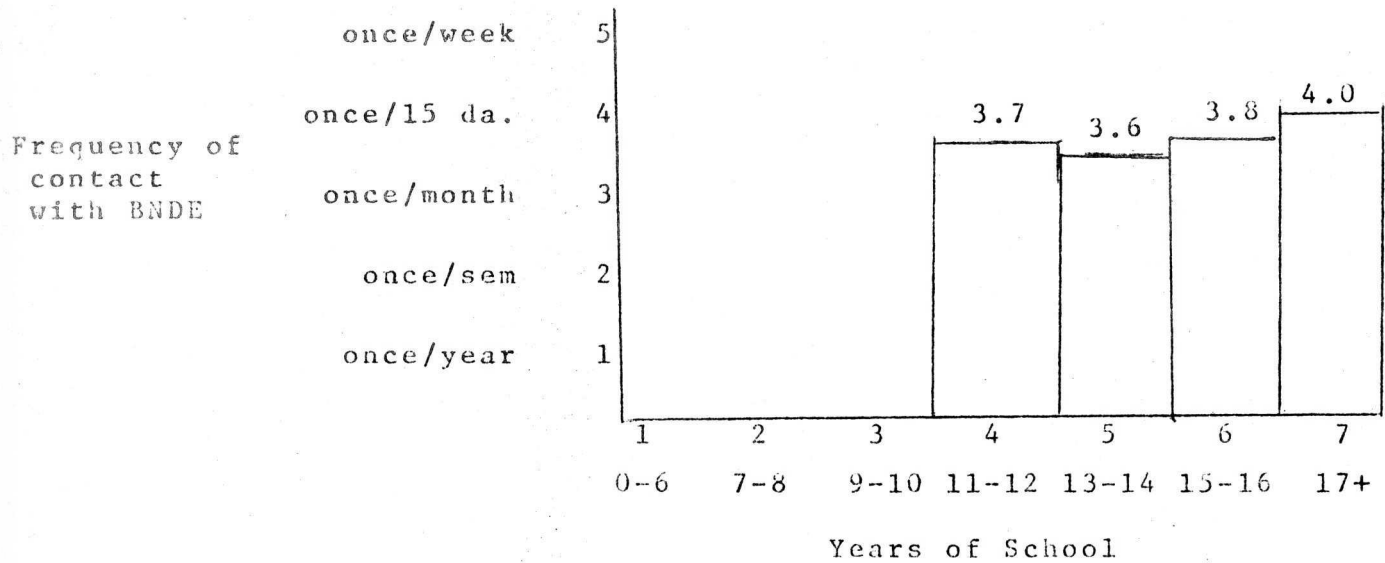
Communication and Time With The Bank

Figure 5



Communication and Time With the Bank

Figure 6



Communication and Years of School

Figure 7

However there was no indication of dissatisfaction with the information available.

Level. As expected, those at higher levels in the organization tend to receive information better than those at lower levels (question 18). This is shown in figure 8. Nonetheless, it was somewhat surprising that this characteristic does not seem to affect other questions.

Degree of involvement - There were several interesting relationships found between this variable and communication. More involved people tend to see the contact between their banks and BNDE as better than less involved ones, (question 2.a). More involved people apparently think the institution should have more influence in the repassé program, (question 7). More involved people think that they receive needed information better (question 18).

Figure 9 pictures these findings.

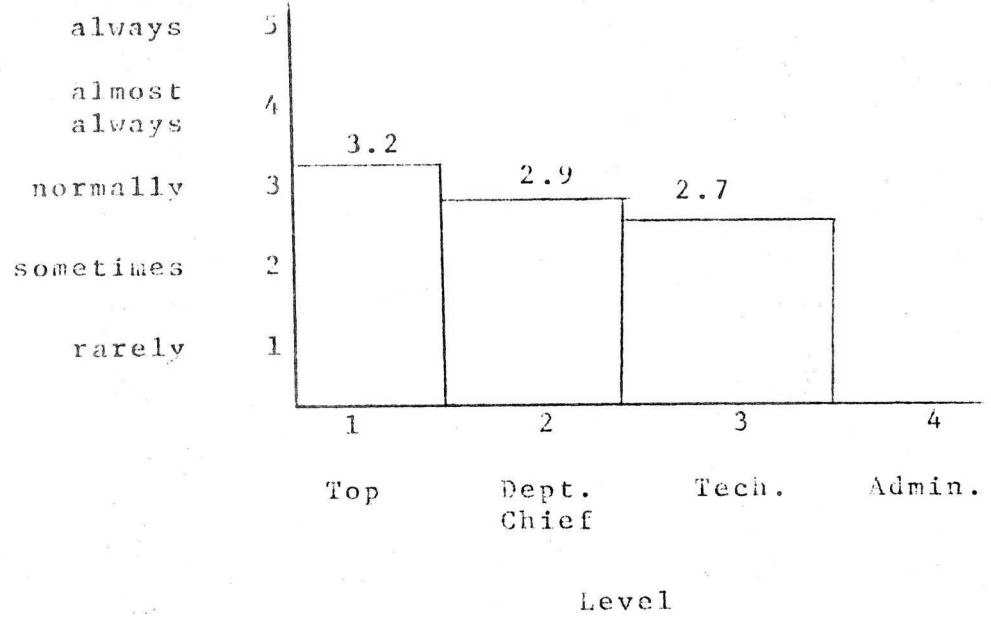
Amount of work done in groups - this variable did not seem to have any systematic effect on responses to the questions in this study.

Bank Effectiveness and Communication as influenced by individual characteristics.

As we anticipated, it was difficult to find relationships in this area because of the small number of respondents. A few relationships were found, but these should be received as suggestive rather than proven.

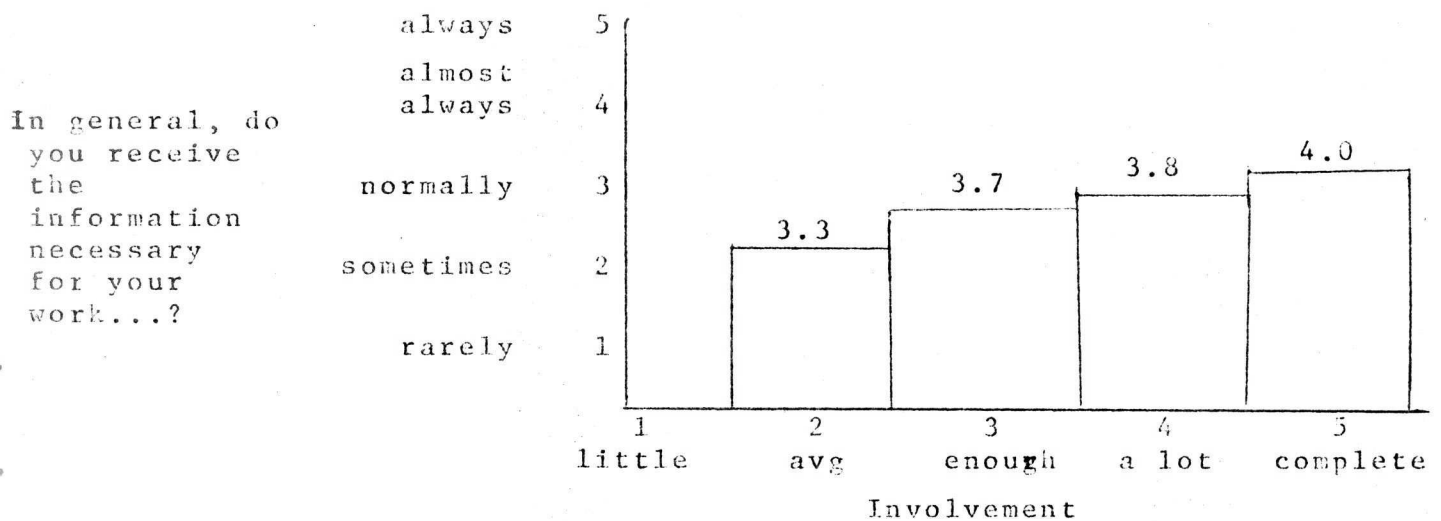
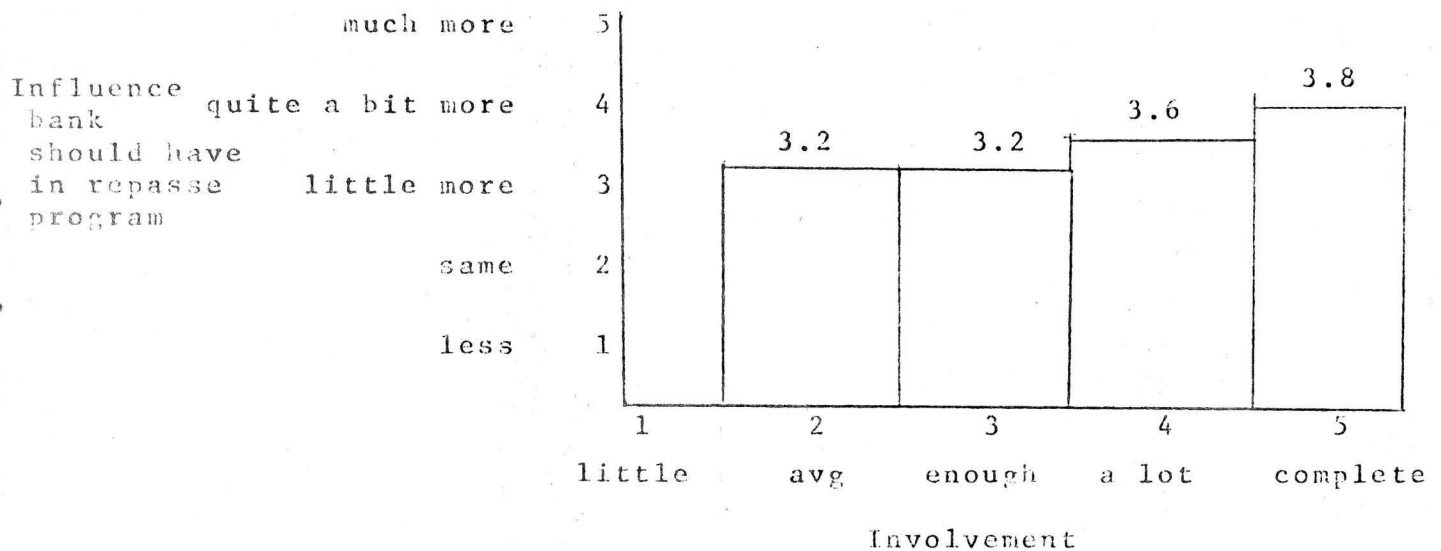
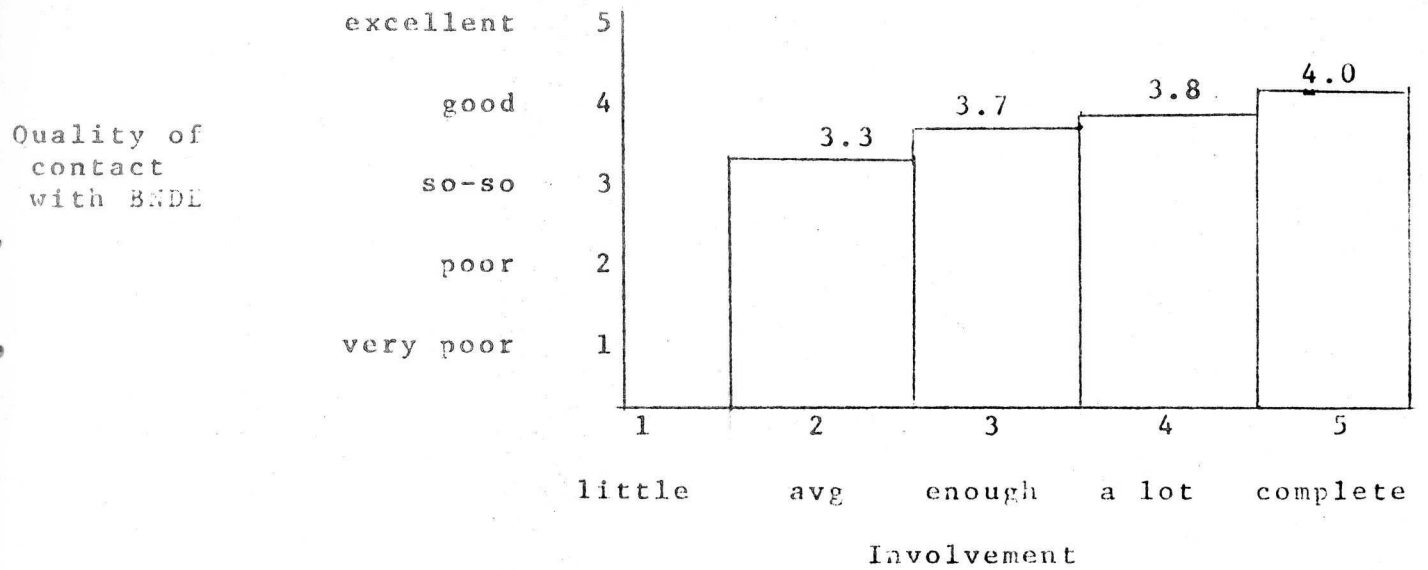
Years of school attended. In effective banks respondents with more education tended to view the contact between the bank and BNDE as worse than those with less education view it (question 2.a). This situation was reversed in less effective banks. (ie more educated people tended to view the contact as better than less educated). This is shown in figure 10.

In general, do you
receive the
information
necessary for
your work...?



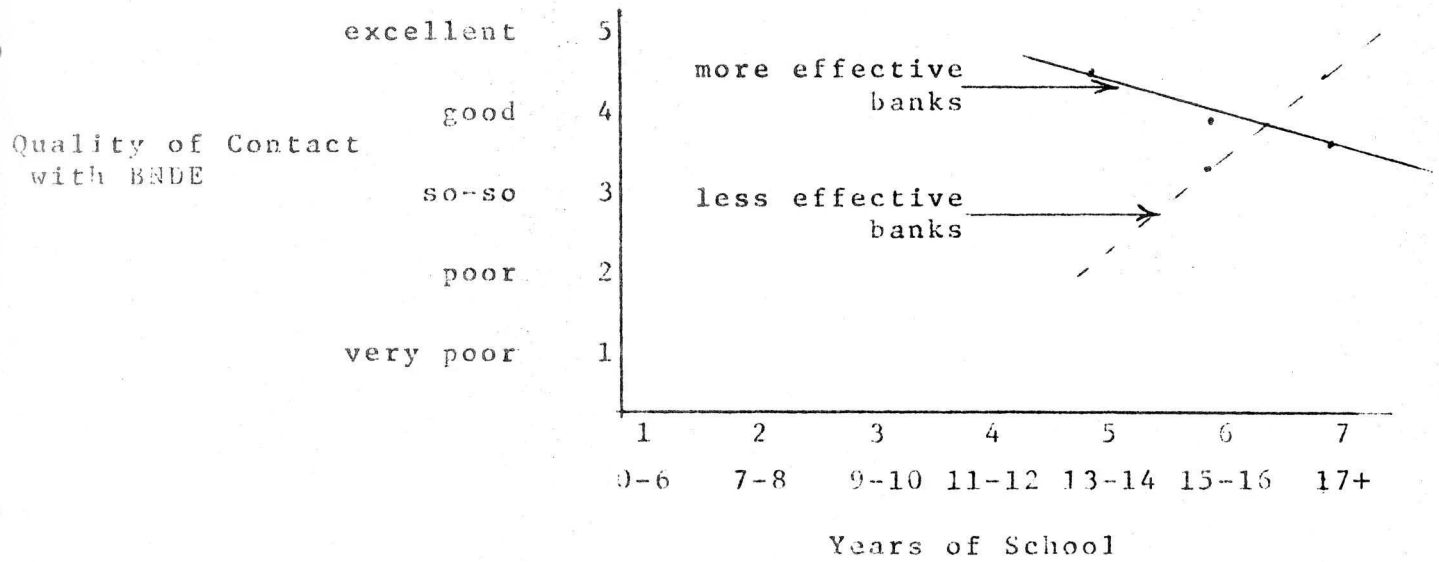
Communication and Level

Figure 3



Communication and Degree of Involvement

Figure 9



Effectiveness and Communication
By Years of School

Figure 10

Level. In effective banks, people at higher levels seem to feel they get more information on BNDE activities than people at lower levels, (question 4). The situation is the other way around in less effective banks (people at higher level get less information than subordinates). This situation diminishes as you consider BNDE activities more removed from the planning and decision making aspects of BNDE. These relationships are summarized in figure 11.

Summary and conclusions

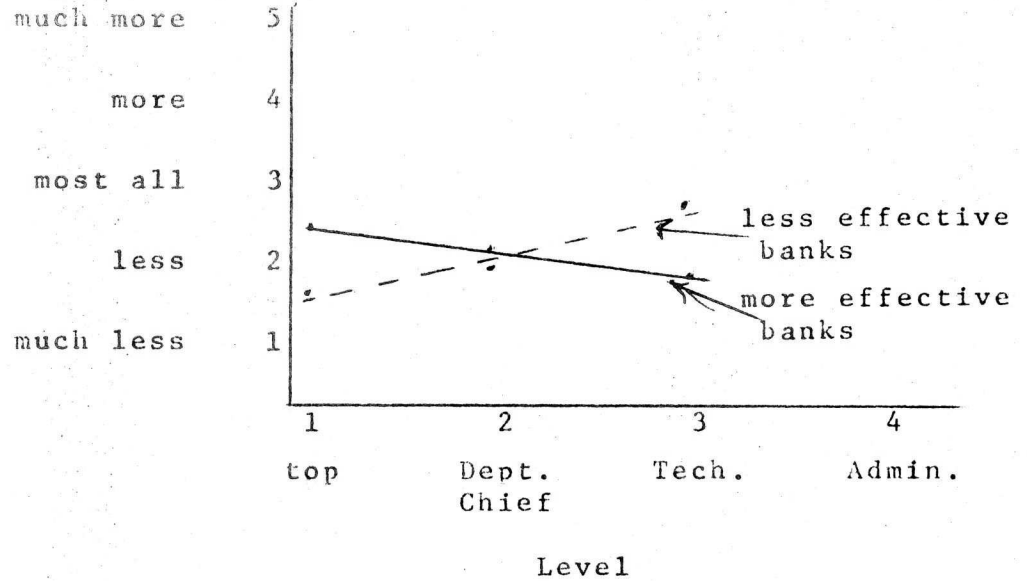
Communication in the BNDE/FIPEME system seems to be reasonably good in general, but people feel they do not get enough information on planning, policy, and control aspects of the system.

Effectiveness is related to the quality of contact between the banks and BNDE, involvement of the employees, and amount of work done in groups.

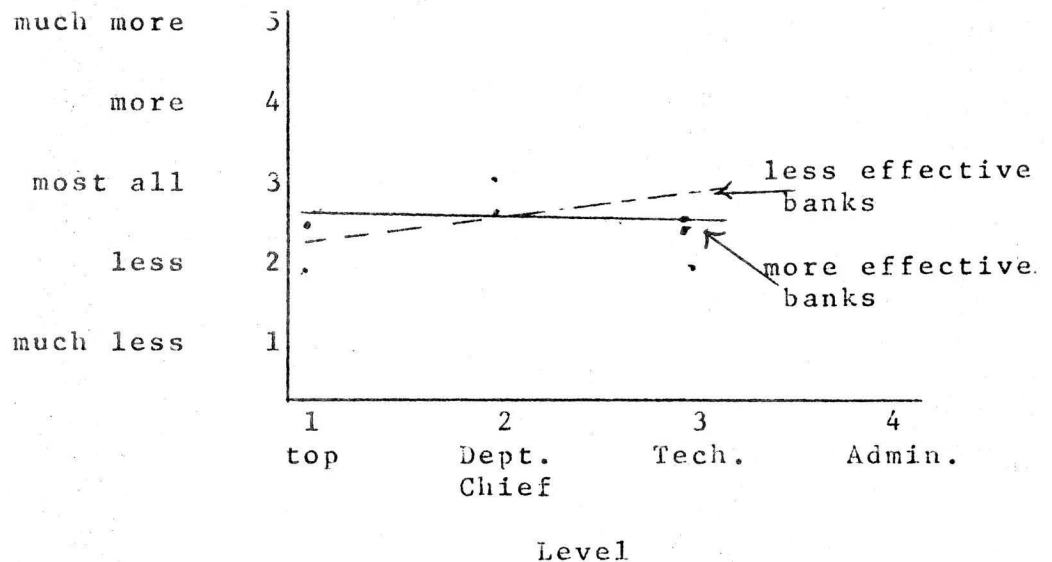
Communication is perceived as better by persons who are older, those who have been with the bank longer, those at higher levels of the organization, and those more involved with their work.

With the exception of the expected relationships between communication and education, the results are generally as expected. The important aspect of communication as related to effectiveness seems to be the quality of the communication rather than the quantity.

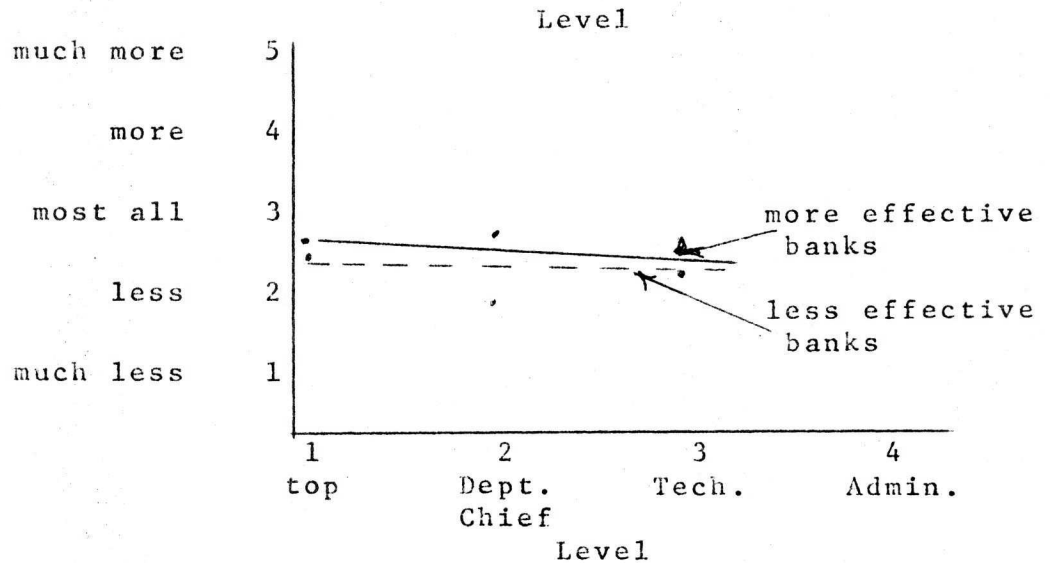
Enough information
on BNDE's decisions?



Enough Information
on plans and
goals of BNDE/
FIPEME?



Enough information
on the performance
of the BNDE/FIPEME
System?



Effectiveness and Communication by Level

Figure 11

APPENDIX

1a. With what frequency would you say there is contact (Communication) between your Institution and the following Organizations ? (Indicate an answer in each line).

	<u>Once a year</u>	<u>Once a Semester</u>	<u>Once a month</u>	<u>Once every 15 days</u>	<u>Once or more times a week</u>	<u>I don't know</u>
BNDE	1	2	3	4	5	

2a. How would you evaluate this contact between your Institution and the following Organizations ? (Indicate an answer in each line)

	<u>Very Poor</u>	<u>Poor</u>	<u>So-So</u>	<u>Good</u>	<u>Excellent</u>	<u>I don't know</u>
BNDE	1	2	3	4	5	

3. Does BNDE generally supply the institution the necessary information with the clarity, completeness and rapidity one would wish ? (Indicate an answer)

- a. Never; the lack of information is a serious problem - 1
- b. Rarely, needs to be improved - 2
- c. Sometimes, but leaves something to be desired - 3
- d. Normally yes - 4
- e. Always, no room for improvement - 5
- f. I don't know

4. Here is a list of matters on which you might wish or need to be informed. In your opinion, do you get enough information on these matters ? (Indicate an answer in each line).

	<u>Much less than what I wish or need</u>	<u>Less than what I wish or need</u>	<u>Almost all or all that I wish or need</u>	<u>More than I need or wish</u>	<u>Much more than what I need or wish</u>
a. BNDE's decisions that effect your work.	1	2	3	4	5
b. Plans and goals of BNDE/FIPEME	1	2	3	4	5
c. Performance of the BNDE/FIPEME system	1	2	3	4	5
d. Activities in process & projects of general interest for the whole system	1	2	3	4	5
e. Performance of the institution as a FIPE- ME agent.	1	2	3	4	5

6. Do you think that BNDE is doing an adequate job of servicing the needs and request of the regional and state banks and companies ? (Indicate an answer).

1. BNDE is doing a very poor job (deficient) - 1

2. BNDE is doing a passable job - 3

3. BNDE is doing a good job - 4

4. BNDE is doing an excellent job for the regional and state banks and companies. - 5

5. I don't know

7. What influence do you think should the institution have in the repasse program ? (Indicate an answer)

1. Less influence than it has now - 1

2. The same influence that it has now - 2

3. A little more - 3

4. Quite a bit more - 4

5. Much more influence than it has now - 5
6. I don't know
18. In general, do you receive the information necessary for your work in a clear, detailed and quick manner as you should ? (Indicate an answer).
- a. Rarely - 1
 - b. Sometimes - 2
 - c. Normally - 3
 - d. Almost always - 4
 - e. Always - 5
 - f. I don't know
20. There are people who are totally involved in their work, thinking about it night and day. For others, their work is only one among varied important interests. To what extent are you involved in your work. (Indicate an answer).
- 1. Little - 1
 - 2. Average - 2
 - 3. Enough - 3
 - 4. A lot - 4
 - 5. Completely - 5
 - 6. I don't know
22. How often do you work in a group ? (Indicate an answer)
- 1. Very often - 1
 - 2. Rarely - 2
 - 3. Sometimes - 3
 - 4. Often - 4

5. Very often - 5

25. What is your age ? (Indicate an answer)

1. Less than 20 years - 1

2. 20-24 - 2

3. 25-29 - 3

4. 30-34 - 4

5. 35-39 - 5

6. 40-44 - 6

7. 45-49 - 7

8. 50-59 - 8

9. 60 or older - 9

27. In what year did you start to work with the institution ? (Indicate an answer)

1. 1967 - 1

2. 1966 - 2

3. 1965-64 - 3

4. 1963-61 - 4

5. 1960-58 - 5

6. 1957-52 - 6

7. 1951-46 - 7

8. Before 1946 - 8

28. How many years of school did you attend ? (elementary, high school, undergraduate and graduate) (Indicate an answer).

1. Less than 6 years - 1

2. 7 to 8 years - 2

- 3. 9 to 10 years - 3
- 4. 11 to 12 years - 4
- 5. 13 to 14 years - 5
- 6. 15 to 16 years - 6
- 7. More than 16 years - 7

30. What is your present position ? (Indicate an answer)

- 1. Top Management - 1
- 2. Technical or administrative management at department chief level - 2
- 3. Technical work -- 3
- 4. General administrative work - 4
- 5. Other _____ - 5

Although this is intended to be a preliminary report, there are several actions suggested by the analysis. These involve primarily an increase in communication.

The main implication is that more information should be supplied on matters relating to decisions of BNDE and the BNDE/FIPEME system. This area was shown to be the one most lacking in sufficient information.

The quality of communication should be improved because this was seen to be related to effectiveness. An effort should also be made to get more information to lower levels of the organization.

Finally, a relationship suggested by the analysis done for this report but not studied directly is the relationship between involvement with the job and amount of work done in groups. Since these are both inversely related to effectiveness, they may be directly related to one another.

If so, it may be advisable to encourage (or discourage) group work.